

which is just another name for *P. virginiana*. He was somewhat uneasy, however, about the appearance of the Sitka pine cone, which had "spinae squamarum parum breviores, quam in icone Lamberti laudata."

In 1825 David Douglas collected lodgepole pine near the mouth of the Columbia River in Washington, and his specimen was quite properly described by Loudon (1838) as a new species. *Pinus inops* of Bongard (not Aiton) then became correctly known as *P. contorta*, but we should remember that once—for a short time—lodgepole pine was known as *P. inops*.

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REVIEWS

Handbook of Plants of the Colorado Front Range. By WILLIAM A. WEBER. vi + 232 pp., 78 figs. 1953. University of Colorado Press. \$5.00.

Both professional and lay botanists have long been in need of a satisfactory guide to the Colorado flora. The standard manuals for the Southern Rocky Mountains are out of print and difficult to obtain. They also are considerably out of date, and difficult for the layman to use. On the other hand, available popular handbooks are so incomplete in their treatment as to be of relatively little value. In this handbook an attempt is made to be sufficiently complete to satisfy the needs of the serious student, and at the same time to make the keys and explanations sufficiently simple to encourage both the beginning student and layman. It is not intended, however, for the use of the professional taxonomist doing critical work.

The author is assistant professor of biology and curator of the herbarium in the University of Colorado. The book developed from a mimeographed key to the Boulder County flora prepared for University of Colorado students. Friends working with the Colorado flora, in desperate need for up-to-date information, encouraged Weber to expand his set of keys to cover the Front Range area. This area includes the eastern slope of the Front Range between Rocky Mountain National Park and Pike's Peak, and ranges in elevation from 5,000 feet to 14,000 feet. Approximately 1,300 species, or almost one half of the total number found in Colorado, occur here. The usefulness of the handbook, however, is extended considerably beyond the limits of the Front Range because of similarity in the flora throughout the mountainous areas of the state.

This handbook was completed several years ago, but financial difficulties prevented immediate publication. The necessity for most authors of regional floras to meet a substantial part of the cost of publication has delayed the appearance of many such books and prevented the publication of several. Dr. Weber fortunately found the solution to this problem in the University of Colorado Press, which is initiating book publication. Nevertheless the book must be reviewed with the realization that many

illustrations and much descriptive material had to be omitted purely and simply because of publication costs.

Introductory chapters include simple explanations on the use of keys, and on the recognition of growth forms, floral parts, and leaves. There also are brief discussions of scientific and common names, general vegetation zones in the Front Range area, techniques of plant collecting, and a list of useful reference books. The dichotomous, bracketed keys to the families and to the genera and species are excellent. The reviewer feels that Dr. Weber does an unusually good job in selecting diagnostic morphologic characters in each series. His intimate knowledge of the flora both in the field and herbarium, and his interest in amateur and student viewpoints are evident in his handling of the keys. Detailed descriptions and complete synonymy are omitted and undoubtedly will be missed by some workers. In addition to basic morphologic criteria, however, there are notes concerning relative abundance, habitat, and altitudinal range, and synonymy with the Rocky Mountain manuals is given. General statements are made regarding variation in taxa where hybridization makes it difficult to key individuals satisfactorily. Also species which are doubtfully distinct or probably differentiated into races are indicated. Both scientific and common names are given for families, genera and species, and the meaning of the species name is appended. The index of scientific and common names lists only families and genera. Inclusion of species would have been welcomed by the reviewer. The book is concluded with a well-illustrated glossary. The usefulness of these illustrations makes one deplore the fact that several hundred others had to be omitted from the keys.

"Handbook of Plants of the Colorado Front Range" is a valuable contribution for an audience with a wide range of botanical experience. It should be welcomed by the many persons interested in the Colorado flora who have needed it so greatly.—JEAN LANGENHEIM, Department of Botany, University of California, Berkeley.

Flora of West Virginia (Part II). By P. D. STRAUSBAUGH and EARL L. CORE. West Virginia University Bulletin, Series 53, June, 1953. \$1.00.

Part two of this well done and inexpensive local flora series is the first of the two or three proposed fascicles treating those dicotyledonous plants "growing without cultivation" in West Virginia. (Part I of the series — reviewed in the April, 1953, issue of *Madroño* — treated the Pteridophyta, gymnosperms, and monocotyledons of that state.) Following the sequence used in the last edition of "Gray's Manual," the current fascicle begins with the treatment of the Saururaceae and ends with Leguminosae.

This second installment is of approximately the same size as the first and contains pages 275–570 of the series. The style of the two fascicles is also similar. Thus part two has the same numerous advantages and the same few disadvantages that were noted for part one. In addition to the general advantages of well done local floras, specific advantages of this publication include good descriptive material and diagnostic drawings, and the inclusion of the meaning of all generic and specific names of the taxa treated. The nominal price will make a wide and useful distribution of the books of this series possible and therefore must also be listed as a distinct advantage. As pointed out in the review of part one, the lack of uniformity of drawings, which were taken from different sources, is of minor esthetic importance and in no way detracts from the accuracy or usefulness of the flora. With the publication of part two it is more apparent that the lack of keys to the families in each fascicle as well as the lack of an index for each fascicle is a distinct disadvantage — especially since the book will be used by students and since the last volume, to contain a comprehensive index, may not be out for several more years.

The perennial problem of identification and relationships within the genus *Rubus* appears to be unavoidable, and the authors draw on the recent work of Davis and Davis (*The genus Rubus in West Virginia*. *Castanea* 18:1–30. 1953) and recognize eighty species of *Rubus* in the area covered. Within this genus even the drawings are of little help and positive identification to the species level will often be rather difficult. Recognition of a smaller number of species, even polymorphic ones, would